

Packing Fruit for Long Distance Shipment

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IN the general development of the fruit-growing industry of the Pacific Coast, one of the main, if not the main characteristic, has been the evolution of successful long-distance shipping. There is on the Pacific Coast itself a comparatively large demand for fruit. Nevertheless, Pacific Coast fruit-growing is based on the markets of the middle west, those of the United States, and on the markets in the large Eastern centres for the highest grade fruit. In evolving this long-distance trade, a number of essential principles seem to be firmly established.

First of all, the fruit itself must be well selected. In the soft fruits especially, a prime requirement, often placed as the most important, is high color. Given even a moderate attainment in size and color, the fruit must certainly be firm and in such condition as to hold up under refrigeration. To meet these requirements, the fruit must practically be perfect in respect to blemishes, form, color and size. Long-distance shipping requires also most timely picking. Much has been done to put in writing just when fruit should be picked; the proper state of maturity is, however, a matter much more of experience than of precept. It is a curious fact that in the judging of condition and the ability of fruit to hold up, the average wholesaler is a much keener and more accurate judge than the average fruitgrower. Every jobber in, say, a prairie city, becomes expert in estimating the commercial "life" of the fruit he receives to an extent not at all appreciated by the growers. In the west, however, the growers are steadily learning much about the "life" of fruit. It is not necessarily the ripest fruit that decays most rapidly; it is not the best-colored fruit that keeps best or looks best on the market.

The handling of fruit for long-distance should be most careful; in addition, there should be a minimum amount of handling, because even most careful handling means slight bruises or abrasions. On the other hand, grading requires

a second handling; the picker cannot pick, grade and pack. In British Columbia there has been a tendency, however, to too much handling. The custom of packing apples from tables is gradually giving way to packing direct from the orchard boxes, as is the practice with soft fruits, the mechanical graders now being largely adopted in Washington furnishing an exception to this rule.

The mechanical grader has come to stay, the improvements brought in in 1914 and 1915 having assured its success. The most up-to-date graders will handle peaches as well as apples, and do it without any discoverable bruising. It is a common demonstration with the new graders to use eggs. The mechanical grader has, however, a number of disadvantages. After all, it grades only to size or weight, and the grading for color, blemishes and grade must still be done by hand; the cost is high, and either gasoline or electric power is required. The graders, further, are not practical with less than 300, and preferably 600, boxes of apples a day. Also, there is a great loss of time in cooperative warehouses in handling small lots, even of the same variety.

On the other hand, the new mechanical graders have definite advantages. They are very accurate as to sizes; the presence of the machine enables speeding up of all the operations, given one good man at the head of the machine. With a good machine and three or four experienced graders, it is possible to pack 600 boxes of apples a day with six or seven inexperienced packers, and still put out a very high grade. The mechanical grader, to a very large extent in Washington, has freed the fruit sections from the domination of the expert packer, and has made available a large supply of packers who, under old grading methods, would not put up a uniform high grade pack. Under favorable conditions, the grader saves two cents to three cents a box over the old methods of operation.

The newness of the apple industry in British



In a British Columbia Orchard.

A Wealthy apple tree in full fruit, and its owner, F. N. Borden, a prosperous Victoria, B. C., fruit grower.

Columbia naturally results in small lots of the variety from each orchard; this has been the principal obstacle to the adoption of the grader so far in this province. A further reason is that the Canadian prairies do not demand the greatest uniformity in pack.

Rigid Packages Used

Packages for long-distance shipping are characteristic. The west has evolved the square, rigid package, contrasting with the packages of the east, most of which lack rigidity or show curves or taper. There are practically no tapering packages used in the west, and practically no flexible packages, such as the "Climax" basket or the peach basket of New York State. These rigid, square packages are the result of two causes: First, the abundance of suitable sawn lumber in the west; but more important, the necessities of long-distance shipping.

The great objection to any package of a tapering shape is that in the packing and later settling of the fruit the tendency to wedge the lower layers causes undue pressure and injury. Further, the tapering packages allow of motion. In the square, rigid package, the individual fruits can be so packed that none of them alter position in any respect; this package makes firm packing possible. In long-distance shipping it is essential that the fruit should not move from its original position in relation to the other fruits in the package.

It requires little money to start into seed growing with alfalfa, so little seed is required to make the initial seeding. Two dollars an acre would be the outside cost, and in two years the farmer would have plenty of seed of his own. The land should be sweet, well drained, not too heavy, and in splendid condition for the sowing of the seed. Seed growing with alfalfa is new to Canadian farmers, but it is easily learned.



All Hands at Work in the Orchard of Mr. D. C. Galbraith, Huron County, Ont.

In this ten-acre orchard the principal varieties of fruit grown are Northern Spy, Golden Russet and Twenty One June Pippin, as well as a few earlier varieties, such as Duchesse, Alexander and Cayuga Red Break. The orchard has been in soil for four years, the grass being cut and left as a mulch, previous to which it was cultivated and a cover crop of rape used, which was turned under in June. Better colored fruit has been obtained since the sod method has been followed.